In the claims:

This Listing of Claims will replace all prior versions, and listings, of claims in the application.

WHAT IS CLAIMED IS:

Claims 1-29 (Canceled).

30. (Currently amended) A method for measuring the presence of an ob polypeptide, an immunogenic fragment thereof, an immunogenic derivative thereof, or an immunogenic analog thereof, in a sample, comprising:

A. contacting a sample suspected of containing an ob polypeptide, an immunogenic fragment thereof, an immunogenic derivative thereof, or an immunogenic analog thereof, with an antibody that binds to ~~the~~ an epitope of said ob polypeptide, immunogenic fragment thereof, immunogenic derivative thereof, or immunogenic analog thereof, said epitope ~~ob polypeptide~~ having an amino acid sequence ~~represented by~~ set out in SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:5, or SEQ ID NO:6, or an immunogenic fragment thereof, immunogenic derivative thereof, or immunogenic analog thereof, under conditions which allow for the formation of reaction complexes comprising the antibody and ~~the~~ said ob polypeptide, immunogenic fragment thereof, immunogenic derivative thereof, or immunogenic analog thereof;[[,]]

B. detecting the formation of said reaction complexes ~~comprising the antibody and ob polypeptide~~ in the sample;

in which detection of the formation of reaction complexes indicates the presence of said ob polypeptide, immunogenic fragment thereof, immunogenic derivative thereof, or immunogenic analog thereof in said ~~the~~ sample.

31. (Previously presented) The method of Claim 30 in which the antibody is bound to a solid phase support.

32. (Previously presented) The method of Claim 31 which further comprises contacting the sample with a labelled ob polypeptide step (A), and removing unbound substances prior to step (B), and in which the formation of reaction complexes in the sample is detected by observing a decrease in the amount of labelled ob polypeptide in the sample.

33. (Previously presented) The method of Claim 31 which further comprises contacting the sample with a labelled antibody in step (A), which labelled antibody is an anti-ob polypeptide antibody, and removing unbound substances prior to step (B), and in which the formation of reaction complexes in the sample is detected by observing an increase in the amount of labelled antibody in the sample.

34. (Previously presented) The method of Claim 30 in which an ob polypeptide is bound to a solid phase support.

35. (Previously presented) The method of Claim 34 which further comprises contacting the sample with an ob polypeptide in step (A), and removing unbound substances prior to step (B), and in which the antibody is labelled and the formation of reaction complexes in the sample is detected by observing a decrease in the amount of labelled antibody.

36.(Previously presented) A method for evaluating the level of ob polypeptide in a biological sample comprising

A. detecting the formation of reaction complexes in a biological sample according to the method of Claim 30;

B. determining the amount of reaction complexes formed, which amount of reaction complexes corresponds to the level of ob polypeptide in the biological sample; and

C. comparing the amount determined in step B. with an amount of ob polypeptide in a control sample in order to evaluate the level of ob polypeptide in the biological sample.

37. (Previously presented) A method for detecting or diagnosing the presence of a

disease associated with elevated or decreased levels of ob polypeptide in a mammalian subject comprising:

A. evaluating the level of ob polypeptide in a biological sample from a mammalian subject according to Claim 36; and

B. comparing the level detected in step (A) to a level of ob polypeptide present in normals or in the subject at an earlier time;

in which an increase in the level of ob polypeptide as compared to normal levels indicates a disease associated with elevated levels of ob polypeptide, and decreased level of ob polypeptide as compared to normal levels indicates a disease associated with decreased levels of ob polypeptide.

38. (Previously presented) A method for monitoring a therapeutic treatment of a disease associated with elevated or decreased levels of ob polypeptide in a mammalian subject comprising evaluating the levels of ob polypeptide in a series of biological samples obtained at different time points from a mammalian subject undergoing a therapeutic treatment for a disease associated with elevated or decreased levels of ob polypeptide according to the method of Claim 36.

39. (Previously presented) The method according to Claim 37 or 38, wherein the disease associated with elevated levels of ob polypeptide is selected from the group consisting of AIDS, cachexia, cancer, and anorexia nervosa.

40. (Previously presented) The method according to Claim 37 or 38, wherein the disease associated with decreased levels of ob polypeptide is selected from the group consisting of obesity, Type II diabetes, hypertension, and elevated blood lipids.

Claims 41-51 (Canceled).